warrants further investigation. Robust analyses are planned to comprehensively describe the clinical and economic burden of TSC in the UK.

PRM41

EXPLORING THE IDENTIFICATION OF MULTIPLE SCLEROSIS INCIDENT COHORTS IN CLAIMS DATABASES: METHODOLOGY AND CHALLENGES

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OBJECTIVES: To explore whether multiple sclerosis (MS) incident cohorts can be identified in claims databases. **METHODS:** We used several approaches to try and identify MS incident cohorts in the US Department of Defense (DOD) and MarketScan® databases, based on diagnostic and treatment history. Patients were first identified with 1 year of no MS claims or treatment before their first MS claim. Sensitivity analyses identified patients with 1–4 years of no MS claims or treatment before their first MS claim. **RESULTS:** In patients with a 1-year baseline history with no MS claims or treatment, age and baseline characteristics were similar to all MS patients. The mean age at index date (second MS claim) was ~50 years, in contrast with previous research reporting a mean age at diagnosis of 25–40 years. Patients aged ≤65 years with ≥1 MS claim and 4 years of continuous baseline enrolment were identified in the DOD (n=16 444) and MarketScan® (n=16 352) databases. With increasing years of baseline history, more patients showed evidence of pre-existing MS; the percentage of total patients with no MS claim or treatment before the first MS claim decreased from 53.3% (1 year history) to 42.2% (4 years history) in the DOD database, and from 23.5% to 15.5% in MarketScan®. Despite the decrease in patient numbers, the mean age at index date remained high (44–49 years). **CONCLUSIONS:** Results indicate that >4 years of patient history is needed to define an incident MS cohort in claims databases. However, the 4-year claim and treatment-free cohort may be useful for studying treatment patterns and their impact on outcomes in recently treatment-naïve MS patients. There are substantial challenges in retrospectively identifying incident cohorts of MS patients using claims databases and a need for additional, large, real-world data sources to study newly diagnosed MS patients.

PRM42

SCREENING CHARACTERISTICS AND DIABETES BIOMARKERS IN FRENCH AND UK PATIENT-LEVEL DATABASES

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OBJECTIVES: Describe the patient characteristics and diabetes markers of type 2 diabetes (T2D) patients in the newly launched IMS LifeLink Diabetes Cohort in France. Monitor the data quality through comparison of measures with a French national survey of diabetes patients (ENTRED), the UK National Diabetes Audit (NDA) where possible, and the "gold standard" UK Clinical Practice Research Datalink (CPRD). **METHODS:** The IMS Diabetes cohort in France supplements patient-level data from general practitioners with additional patient data via pop-up technology within electronic medical records to facilitate robust epidemiological studies. This study compares the T2D patients in the Diabetes Cohort with similar populations in terms of gender, age, disease duration, and proportion of patients meeting key disease-specific targets (data presented as summary statistics). **RESULTS:** Patient characteristics and diabetes markers were analyzed for T2D patients in the Diabetes Cohort (n=5,142), ENTRED (n=3,894), UK NDA (n=1,909,494), and UK CPRD (n=268,618). The mean (SD) age in years was 66 (12.58) in the Diabetes Cohort, 66 in ENTRED, and 61 (15.35) in CPRD. The mean (SD) time since T2D diagnosis was 8 (7.7), 11, and 7.7 (6.2) years in the Diabetes Cohort, ENTRED, and CPRD, respectively. Mean (SD) BMI was 30.5 (5.76) in the Diabetes Cohort, 29.5 in ENTRED, and 30.8 (6.51) in CPRD. HbA1c target level of ≤6.5% was met by 32.5%, 34%, 23.5%, and 26% of the patients in the Diabetes Cohort, ENTRED, CPRD, and NDA, respectively. **CONCLUSIONS:** Health care systems and data collection methods vary across EU countries in general. Data monitoring helps assess data quality and robustness. Based on comparison of patient characteristics and diabetes markers, the IMS Diabetes Cohort population does not appear to differ from the ENTRED population. Although some differences between the Diabetes Cohort and CPRD data were noted, this unique French Diabetes Cohort appears appropriate for epidemiological research.

PRM43

MEDICAL AND PHARMACY CLAIMS-BASED ALGORITHMS FOR IDENTIFYING RELAPSES IN PATIENTS WITH MULTIPLE SCLEROSIS

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OBJECTIVES: To develop appropriate algorithms for identifying and classifying relapses among patients with multiple sclerosis in claims databases. **METHODS:** Algorithms for detecting relapses in claims databases were identified by literature searches and refined by neurologists and database experts to identify relapses in inpatient and outpatient settings. Definitions were used in the US Department of Defense (DOD) and MarketScan® databases to determine annualized relapse rates (ARR) occurring after index date (date of second MS medical claim separated by ≥30 days, following ≥12 months of continuous enrollment) during the 12-month and all available follow-up time. **RESULTS:** A relapse was defined as an inpatient visit with a primary ICD-9-CM diagnosis code 340.xx or both an outpatient visit with any 340.xx diagnosis code and oral or intravenous corticosteroid use ≤7 days of the outpatient visit. ARR estimates in the DOD (N=15,447) and MarketScan® (N=35,134) databases were 0.25–0.30 and 0.20–0.27, respectively. For inpatient relapses, estimates were 0.04–0.06 in the DOD database and 0.02–0.03 in the MarketScan® database. The corresponding estimates for outpatient relapses were 0.20–0.23 and 0.18–0.24. Severe relapses required an inpatient visit plus additional evidence of brain or spinal magnetic resonance imaging ≤7 days before or during hospitalization, or an outpatient visit combined with extended treatment (starting 0–30 days after outpatient visit) with ≥1 of the following: a further course of intravenous corticosteroids >7 days after the first course; a course of oral corticosteroids >7 days after the intravenous course; intravenous immunoglobulins or plasma exchange. Algorithms for identifying atypical relapses were also developed. **CONCLUSIONS:** General and outpatient ARRs are consistent between the two distinct claims databases and are similar to those reported in the literature. Differences in inpatient ARRs may indicate differences between clinical practices in the two systems. Further investigation in the real-world setting is required.

PRM44

COMPARISON OF METHODS TO IDENTIFY STAGE IIIB OR IV METASTATIC LUNG CANCER PATIENTS FROM ELECTRONIC MEDICAL RECORDS

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OBJECTIVES: Increased use of electronic medical records (EMR) has necessitated efficient ways to identify patients with certain clinical characteristics. This study compared use of standard fields and standard language recognition of progress notes to identify patients with metastatic lung cancer within an oncology-specific EMR. **METHODS:** Lung cancer patients (ICD-9-CM: 162.2 - 162.9) with second line erlotinib treatment were identified from a proprietary EMR. Method 1 identified metastatic disease using standard data fields for diagnoses (196.x – 198.x) and/or stage (3B/IIIB or 4/IV); Method 2 utilized keyword searches for indications of metastases or stage within progress notes. Chart reviews were used to confirm advanced disease. Positive and negative predictive values (PPV and NPV) were then compared across methods. **RESULTS:** A total of 740 patients were identified with suspected metastatic disease; 60.1% (n=448) using Method 1. Of the remaining 292 patients, 282 (96.5%) were identified by metastases and 117 (40.1%) by stage keywords (Method 2). Overall, 671 (86.6%) were confirmed "metastatic" with chart review and 5 patients excluded for evidence of other cancers. Overall, PPV was 100% and NPV 6.3%. Of those identified as metastatic using the standard fields, the PPV for metastases and stage were 65.5% and 66.3% respectively and 99.3% combined. The PPV and NPV among the 287 patients identified only by keyword searches, was 98.2% and 8.7% respectively for metastases and 49.3% and 89.9% respectively for stage. **CONCLUSIONS:** Utilization of standard EMR fields for diagnosis and disease stage, when used together, resulted in identification of large numbers of confirmed metastatic lung cancer patients. However, for those patients requiring text searches for metastases and stage, neither separately nor in combination, could adequately identify metastatic disease patients. Further standardization of EMRs and consistent entry within oncology practices could reduce the need for labor-intensive, costly human chart review in real-world oncology research.

PRM45

ASSESSMENT OF A CANADIAN PRIMARY CARE ELECTRONIC MEDICAL RECORD DATABASE FOR USE IN OBSERVATIONAL STUDIES

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OBJECTIVES: Observational data derived from clinical practice is becoming increasingly important to answer questions that cannot be addressed by RCTs. Although there are a number of administrative databases in Canada, access to more comprehensive, longitudinal clinical data such as smoking status, body weight and laboratory values in the primary care setting is limited. The objective of this study was to evaluate a Primary Care EMR (Electronic Medical Record) system to determine its feasibility for use in observational studies. **METHODS:** We analyzed de-identified patient data from primary Health Care Professionals (HCPs) including General Practitioners from 2009-2011. Comprehensiveness and completeness of each variable by visit were evaluated. First steps were taken to understand how the patient population compares to data from published sources. **RESULTS:** There were 3,019,954 patient visits observed by 255,274 active patients (≥1 visit). The patient visits were entered by 497 HCPs (152 physicians). Data are available for demographics, vitals, smoking status, laboratory values, prescriptions, medical history, diagnosis (ICD-9), short term absences and referrals. Completeness of each variable by visit ranged from 26% for pulse to 100% for age, sex, lab results and referrals. Initial assessment revealed that 85.6% of written prescriptions and 88% of diagnoses were recorded using structured fields. The median age of patients in the EMR was 37.2 years compared to 39.9 years reported by Statistics Canada (July 2011). Younger age groups were overrepresented, with the largest difference found in those 20-29 years; no difference was observed for sex. **CONCLUSIONS:** The status of electronic primary care health records in Canada is still in its infancy. The research suggests this is a valuable new addition to support observational studies in Canada. Disease specific validation studies will be required prior to further analysis. Further research is being undertaken to review quality measures.

PRM46

EVALUATION OF DISSEMINATION OF BRAZILIAN NETWORK FOR HEALTH TECHNOLOGY ASSESSMENT (REBRATS)

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OBJECTIVES: The Brazilian Network for Health Technology Assessment (REBRATS) is composed of universities, hospitals and managing institutions who have among their goals the objective to elaborate and disseminate HTA information. The network's website and database are found at the http://www.saude.gov.br/rebrats and are tools to disseminate the policies and methodological guidelines of the network's institutional organization and the studies produced by its members. To evaluate the degree of the network's dissemination on national and international levels by analyzing the level of access and the rate of return from site users. **METHODS:** To analyze the number of visits to the REBRATS site registered through the Google Analytics monitoring and data extraction tool, with the intention of identifying